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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/811,549	03/20/2001	Osamu Kawai	1081.1115	9082

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CHEUNG, MARY DA ZHI WANG

[REDACTED] ART UNIT [REDACTED] PAPER NUMBER

3621

DATE MAILED: 09/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

SW

Office Action Summary	Application No.	Applicant(s)
	09/811,549	KAWAI ET AL.
	Examiner Mary Cheung	Art Unit 3621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 20 March 2001.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-17 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-17 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
 If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____ .
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ .
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2 .	6) <input type="checkbox"/> Other: _____ .

DETAILED ACTION

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 14 and 17 are rejected under 35 U.S.C. 101 because the claimed invention is directed towards an abstract idea, and does not provide a practical application in the technological arts. The management method in claims 14 and 17 has no computer performing steps. Therefore, applicant is advised to embed a computer or processor or module into these claims in order to overcome the rejection.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1-16 comprise a subject matter of "combination type". It is not clear what the combination type is and what the combination type includes.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 10-12 and 16 are rejected under 35 U.S.C. 102(e) as being anticipated by Bondi et al., U. S. Patent 6,333,979.

As to claim 10, Bondi teaches a terminal device capable of connecting to a network, said terminal device comprising (Fig. 1):

- a) A storing unit storing an combination type of at least one business entity bearing the costs related to the terminal device (column 4 line 49 – column 5 line 65 and column 7 lines 16-63);
- b) A communication unit sending a combination type stored in said storing unit with a network connection request to a predetermined server on the network (column 15 line 6 – column 16 line 12 and Figs. 16-17).

As to claim 11, Bondi teaches an overwriting unit, when said communicating unit receives an combination type from said server, overwriting an combination type stored in said storing unit with said received combination type (column 15 line 6 – column 16 line 12 and Figs. 16-17).

As to claim 12, an overwriting unit, when said communicating unit receives an combination type from said server, comparing an combination type stored in said storing unit with said received combination type, and in a case that there is no match, overwriting an combination type stored in said storing unit with said received combination type are taught by Bondi as an overwriting unit updating the combination

type, and comparing said received combination type with an combination type stored in said storing unit to determine the ultimate route, said combination type is updated accordingly (column 15 line 6 – column 16 line 12 and Figs. 16-17).

Claim 16 is rejected for the similar reason as claim 10.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bondi et al., U. S. Patent 6,333,979.

As to claim 13, Bondi teaches all claimed limitation as discussed above except for a removable storage medium placed in the terminal device. However, a removable storage medium is well known in the art, and it would have been obvious to one of

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ordinary skill in the art to include a removable storage medium placed in the terminal device of Bondi because this would provide convenience for the user who would like to store information in a portable device.

10. Claims 1-9, 14-15 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bondi et al., U. S. Patent 6,333,979 in view of Farris, U. S. Patent 6,064,653.

As to claim 1, Bondi teaches a terminal management device for managing costs related to terminal devices, said terminal management device comprising (abstract and column 4 lines 49-57 and Fig. 1):

- a) A storing unit storing management information for classifying each terminal device by the combination type of at least one business entity bearing the costs related to the terminal device (column 4 line 49 – column 5 line 65 and column 7 lines 16-63);
- b) A managing unit managing the costs related to each terminal device based on said combination type (column 4 lines 49-57 and column 7 lines 36-63 and column 9 lines 55-62 and column 14 lines 57-59).

Bondi does not explicitly state that the costs related to each terminal device are the sharing costs. However, this matter is taught by Farris as managing the sharing costs to each terminal device based on the routing (abstract). It would have been obvious to one of ordinary skill in the art at the time the invention was made to allow the managing unit of Bondi to include managing the sharing costs related to each terminal device for optimizing the costs of the service.

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As to claims 2-3, Bondi teaches said management information includes the shared cost of business entities in each combination type (see claim 1 above); and when said combination type is changed relative to each terminal device said managing unit computes for each business entity the difference between the cost, which each business entity corresponding to the combination type of prior to the change is already bearing, and the cost, which each business entity corresponding to the combination type of subsequent to the change will bear are taught by Bondi as said combination type is changed based on the computed destination plan, and said combination type is stored and is used later to compute another destination plan for optimizing the cost and quality of the service (column 4 lines 49-57 and column 7 lines 36-63 and column 9 lines 55-62 and column 14 lines 57-59 and column 15 line 6 – column 16 line 12 and Figs. 16-17).

As to claim 4, Bondi teaches each terminal device is capable of connecting to a network (Fig. 1).

As to claim 5, Bondi teaches each terminal device is capable of connecting to a network, and said terminal management device further comprises a communication unit receiving via a network a network connect request from each terminal device, and when said combination type is changed relative to each terminal device, the combination type of each terminal device stored in said management information is updated to the combination type of subsequent to the change, said managing unit executes said computation relative to the terminal devices which sent the network connection request (column 15 line 6 – column 16 line 12 and Figs. 1, 16-17).

As to claims 6-7, Bondi teaches each terminal device is capable of connecting to a network (Fig. 1),

- a) Said terminal management device further comprises a communication unit receiving an combination type stored before hand in a terminal device with a network connection request from the terminal device (column 15 line 6 – column 16 line 12 and Figs. 16-17),
- b) When said combination type is changed relative to each terminal device, the combination type of each terminal device stored in said management information is updated to the combination type of subsequent to the change (column 15 line 6 – column 16 line 12 and Figs. 16-17);
- c) Said managing unit compares said received combination type with the terminal device combination type stored in said management information, and in the case of a match, sends to the terminal device information corresponding to the combination type, and in a case that there is not a match, sends to the terminal device information corresponding to the combination type stored in said management information, and furthermore, by sending to the terminal device the combination type of subsequent to said change, updates the combination type stored in the terminal device to the combination type of subsequent to said change are taught by Bondi as said managing unit compares said received combination type with the terminal device combination type stored in said management information to determine the ultimate route, said combination type is updated accordingly (column 15 line 6 – column 16 line 12 and Figs. 16-17).

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As to claim 8, in case that there is no said match, upon receiving predetermined temporary change information together with an combination type sent from the terminal device, said communication unit sends to the terminal device information corresponding to said received combination type are taught by Bondi as said managing unit compares said received combination type with the terminal device combination type stored in said management information to determine the ultimate route, said combination type is recorded accordingly (column 15 line 6 – column 16 line 12 and Figs. 16-17). Bondi does not specifically teach does not update said management information. Bondi teaches updating the history record of this transaction; however, this will not necessarily change the combination type (destination plan) for the terminal device, specially, if certain patterns of the routings are not popular according to the recorded history file, and the existing destination plan dominate majority of the routes. Accordingly, it would have been obvious to one of ordinary skill in the art to allow the teachings of Bondi to include a feature of do not update the management information if the change is determined to be temporary because this would avoid complexities of data analysis.

As to claim 9, Bondi modified by Farris teaches wherein costs related to each terminal device are the purchasing costs of said terminal device (see claim 1 above).

Claims 14 and 15 are rejected for the similar reason as claim 1.

As to claim 17, Bondi teaches a terminal management method for managing the costs of a terminal device capable of utilizing a service provided by a business entity, the method comprising: managing the cost of a distributed said terminal device; and in case that a service capable of being utilized by said terminal device is added, managing

the cost of said distributed terminal device by the business entity providing the added service and a business entity provided an existing service (column 4 line 49 – column 5 line 65 and column 7 lines 16-63 and column 9 lines 55-62 and column 14 lines 57-59 and column 15 line 6 – column 16 line 12 and Figs. 1, 16-17).

Bondi does not explicitly state the cost of said distributed terminal device is the sharing cost. However, this matter is taught by Farris as managing the sharing cost to each terminal device based on the routing (abstract). It would have been obvious to one of ordinary skill in the art at the time the invention was made to allow the teaching of Bondi to include managing the sharing cost of said distributed terminal device for optimizing the costs of the service.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hartmann (U. S. Patent 5,537,468) discloses a non-hierarchical method for routing traffic to achieve optimum throughput values under all traffic load states by modifying the number of alternate routes available for overflow traffic in real time.

Qiu et al. (U. S. Patent 5,615,254) discloses determining a set of alternate routing paths for each of a plurality of ordered pairs of the switches.

Johnson (U. S. Patent 5,970,050) discloses an optimum level of traffic is adjusted to make use of the route more costly if the traffic exceeds the notional value.

Chang et al. (U. S. Patent 6,545,781) discloses packet routing information is embedded in the same channel or wavelength as the data payload.

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Ogino (JP 11225159 A) discloses dynamically select a least cost route by selecting a route according to a cost corrected based on a link-shared effect band.

Inquire

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mary Cheung whose telephone number is (703)-305-0084. The examiner can normally be reached on Monday – Thursday from 8:00 AM to 5:30 PM. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Trammell, can be reached on (703) 305-9768.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

The fax phone number for the organization where this application or proceedings is assigned are as follows:

(703) 872-9306 (Official Communications; including After Final
Communications labeled "BOX AF")

(703) 746-5619 (Draft Communications)

Hand delivered responses should be brought to Crystal Park 5, 2451 Crystal Drive, 7th Floor Receptionist.

Mary Cheung
Patent Examiner
Art Unit 3621
August 26, 2003

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